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Market pulp is the only commodity shipped from the Portocel terminal in Brazil, as reported in the Aracruz article on p. 46. **(Staff photo by Jim Young.)**

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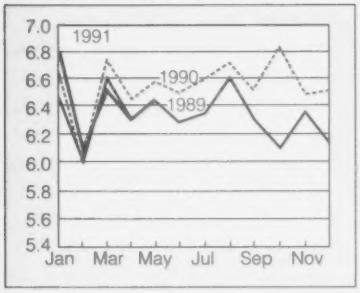
ABP

BPA

U.S. paper and board production



U.S. production of paper and paperboard totaled 6.4 million tons in May, according to the American Paper Institute, down 1.9% from the same month last year. The trend rate for paper stood at 38.2 million tpy through May, down 2.1% from last year, while the paperboard rate ended the month at 39.3 million tpy, up 0.5%. Month-to-month declines appear to have eased for the paper sector, API reported, but paperboard output declined fractionally from April.

Among major grades, printing and writing paper shipments were still off 4.9% through May, but API said that recent data show evidence of a turnaround. The major printing and writing grades gained ground in April and May, and unshipped orders turned upward after steep declines in the past two quarters. In paperboard, containerboard production for the domestic market was flat due to inventory drawdowns at box plants and mills. Box shipments were down 1.8%, according to the Fibre Box Assn.

Canadian newsprint shipments totaled 733,000 metric tons in April, down 10.0% from a year before, according to the Canadian Pulp & Paper Assn. (figures for May were not available at press time). Woodpulp shipments rose 6.0% to 657,000 tons. Operating rates stood at 88% for newsprint mills and 83% for pulp plants. ■

	Latest month (000 short tons)		% change from year ago	Annualized year-to-date (000 short tons)	% change from year ago
PAPER & PAPERBOARD PRODUCTION[1]					
Newsprint	May	574	5.3	6,770	4.8
Uncoated groundwood (s)	May	130	-5.8	1,643	-5.5
Coated paper (s)	May	565	-8.9	6,969	-5.3
Uncoated free-sheet (s)	May	949	-0.8	11,041	-4.6
Other printing/writing	May	126	0.8	1,531	-5.2
Total packaging and other paper (s)	May	363	-10.6	4,522	-1.7
Tissue	May	472	-4.5	5,758	0.6
Total paper	**May**	**3,179**	**-3.2**	**38,233**	**-2.1**
Unbleached kraft paperboard	May	1,660	-1.4	20,147	1.5
Semichemical medium	May	472	-5.4	5,653	-0.6
Bleached paperboard	May	393	6.8	4,596	1.8
Recycled paperboard	May	743	0.1	8,871	-1.7
Total paperboard	**May**	**3,269**	**-0.7**	**39,268**	**0.5**
Total U.S. paper and paperboard output	**May**	**6,448**	**-1.9**	**77,501**	**-0.8**
PULP, WASTEPAPER & FIBER[2]					
Total U.S. woodpulp production	Apr.	5,285	0.6	63,649	1.8
Market pulp production	Apr.	783	16.2	9,140	6.5
Wastepaper consumption at paper/board mills	Apr.	1,740	0.1	21,125	3.3
Pulpwood consumption (cords)	Apr.	8,271	0.1	100,044	0.3
CONVERTED PRODUCTS STATISTICS[3]					
Corrugated box shipments (billion ft²)	May	26.967	-2.3	131.097[6]	-1.8
Containerboard inventories at U.S. box plants and mills	May 1	2,883	11.2		
INTERNATIONAL TRADE[2]					
U.S. paper imports (including products)	Apr.	997	-11.8	12,296	-7.4
Imports of Canadian newsprint	Apr.	621	-14.1	7,730[6]	-8.9
U.S. paper exports (including products)	Apr.	683	11.1	8,085	17.5
Exports of unbleached kraft linerboard	Apr.	236	-7.8	3,051	13.7
Exports of woodpulp	Apr.	528	-1.9	6,268	7.4
Norscan pulp inventories[4]	May 31	1,583	9.8		
Norscan pulp operating rates[4]	May	85%	84%	88%	89%
CANADIAN STATISTICS[5] *(reported in metric tons)*					
Total newsprint shipments	Apr.	733	-10.0	2,944[6]	-4.2
Operating rates	Apr.	88%	93%	92%	94%
Inventories held by U.S. consumers	Apr. 30	1,425	11.9		
Other paper/board shipments	Apr.	588	-3.3	2,340	-3.8
Woodpulp shipments (export only)	Apr.	657	6.0	2,758	8.5
Operating rates	Apr.	83%	83%	90%	90%

1. American Paper Institute. 2. API, Bureau of Census, American Pulpwood Assn. 3. Fibre Box Assn., Paperboard Packaging Council. 4. North American/Scandinavian paper-grade market pulp. 5. Canadian Pulp & Paper Assn. 6. Not annualized. (s) = Shipments.

Corrugating medium: Pickup in demand, slow capacity growth set stage for market recovery

Grade structure: Corrugating medium, the middle fluting material used in corrugated containers, is made from both semichemical pulp and recycled fiber. Semichemical medium may not contain less than 75% virgin woodpulp (mainly semichemical). The share of total medium capacity held by semichemical has declined to about 71% from 79% in 1980, while recycled has grown to 29%.

Basis weights for corrugating medium are 22, 26, 33, 36, and 40 lb/1,000 ft². Standard sheet weight is 26 lb, which accounts for about 77% of production (although heavier weights have been growing in popularity).

Production/capacity: The corrugating medium market has been in a slump for more than two years due to sluggish demand and rapid capacity growth for recycled medium. Prices have been declining for more than two years, hurting profitability and resulting in the closure of some mills and delay of some expansion projects. With almost no future capacity growth planned, the stage should be set for a market recovery when the economy picks up.

In the mean time, the recession has been taking its toll on U.S. corrugated box shipments, which rose a mere 0.8% in 1990 and are projected to decline about 0.5% this year. Corrugating medium production registered a healthy gain of 2.9% in 1990 to a record 7.7 million tons. Semichemical production last year was practically flat at 5.7 million tons. Recycled medium output took a jump of 11% to 2.0 million tons, reflecting new capacity additions.

Corrugating medium production in 1991 is expected to decline 0.8% due to the lower corrugated box cutup. Semichemical medium output held up well through May but is expected to be down 1.1% for all of 1991, partly due to downtime at several mills for machine rebuilds and conversion of one machine to recycled linerboard. Operating rates for semichemical mills will remain near full capacity at about 97%. Recycled medium production is expected to remain flat, but this would cause operating rates to decline to about 85% because of further capacity growth.

Outlook: Corrugated box shipments are expected to begin recovering in second-half 1991 with a gradual pickup in the economy. The improvement is expected to continue in 1992, with box shipments for the year rising about 4% (based on projected real GNP growth of 3.4%). Corrugating medium production is expected to rebound 4.3% next year, with the strongest improvement in recycled medium. Semichemical medium mills are expected to continue running near capacity, while operating rates for recycled mills move up to roughly 90%.

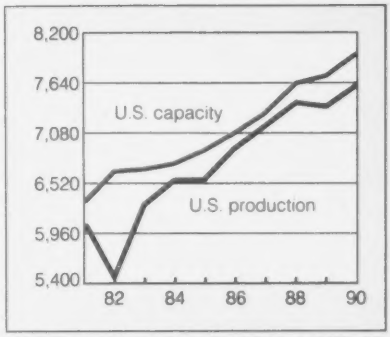
The improvement in operating rates is helped by a lack of new capacity additions. Semichemical medium capacity is expected to rise 2.9% in 1992 after declining 0.6% in 1991, according to the American Paper Institute's 1990 capacity survey. These figures include the shutdown of a 100,000-tpy semichemical mill at Harriman, Tenn., in early 1990 but may not include Green Bay Packaging Inc.'s conversion of a 170,000-tpy machine to recycled linerboard in early 1991. Recycled medium capacity is expected to rise 1.7% in 1992 after increasing 4.5% in 1991 (and a sizzling 9%/year over the 1987-90 period).

Some semichemical machine rebuild projects are under way at Willamette Industries Inc., Menasha Corp., and Weston Paper & Manufacturing Co. Beyond these projects, virtually no new capacity additions have been scheduled for the 1992-94 period.

Prices: After reaching close to $400/short ton in second-quarter 1988, prices for semichemical medium have been steadily eroding. By this spring the list price for 26-lb semichemical medium had dropped to $300, and transaction prices in the East by early summer were down to $280 to $290.

With signs that the market may be turning, producers began to announce a new list price of $330 for semichemical medium and $320 for recycled in the East, effective Aug. 1. Year-end transaction prices for 26-lb semichemical in the East are as follows: 1985, $240; 1986, $290-300; 1987, $350-360; 1988, $380-390; 1989, $360-370; 1990, $300-320. ■

SUPPLY/DEMAND (000 tons)



FORECAST (000 tons)

U.S.	1990	1991e	1992e
Production			
Semichemical	5,710	5,640	5,820
Recycled	1,985	1,990	2,140
Total	7,695	7,630	7,960
Capacity			
Semichemical	5,845	5,810	5,980
Recycled	2,230	2,330	2,370
Total	8,075	8,140	8,350
Utilization rates			
Semichemical	97.7	97.2	98.0
Recycled	89.0	85.2	90.3
Imports	140	130	135
Exports	145	165	150
Apparent U.S. consumption	7,690	7,593	7,945
lb/capita	60.94	55.68	61.92
GNP ratio	1.84	1.82	1.85

1. American Paper Institute capacity survey (1990).
2. 1,000 tons/$ billion real GNP.
e = *Pulp & Paper* estimate.

TOP U.S. PRODUCERS (000 tpy)

	Annual capacity			Market share (%)
	Semi-chem	Recycled medium	Total	
1. Stone	685	235	920	11.3%
2. G-P	825	—	820	10.1
3. PCA	735	70	800	9.8
4. Weyco	675	—	675	8.3
5. Inland	240	360	600	7.3
6. Smurfit	115	390	505	6.2
7. Mead	380	—	380	4.7
8. IP	375	—	375	4.6
9. Willamette	165	180	345	4.2
10. Va. Fibre	270	—	270	3.3

Market share of top five companies:
46.9%
Market share of top ten companies:
69.9%
Total U.S. capacity (1991):
8,140

1. Includes G-P's 50% interest in a 170,000-tpy machine at Sonoco Products Co.'s Hartsville, S.C., mill.

Finland port strike disrupts paper mills

About a dozen Finnish paper and pulp mills took downtime and idled workers when a strike by more than 25,000 transportation workers in June blocked overseas shipments and virtually isolated the country from the rest of Europe. Over 3,500 Finnish dock workers returned to their jobs late in the month ending a three-week strike that had closed most of the country's ports and halted bus and truck traffic. Port workers on June 27 accepted a 4% wage increase for 1991, following ratification of a 3.8% wage hike by 20,000 bus and truck drivers. The transport workers' union called for a strike June 2 to push for a 6.1% wage hike, with employers later locking out workers in the transportation sector.

The strike blocked 80% of the country's total exports and imports. The country's vast pulp and paper industry was hardest hit, with at least ten mills shutting down because of a lack of storage space. Thousands of pulp and paper industry workers were idled. Although the strike reduced forest products shipments by 95%, it did not last long enough to have a major effect on deliveries, observers said. Finland exported 6.1 million tons of paper and 1.6 million tons of board in 1990, and the pulp and paper industry was reported to have suffered profit losses of FM100 million ($24 million) during the 24-day strike. The country's reputation as a reliable forest products supplier was also damaged in the strike, with many customers temporarily switching to others sources. ■

Earnings drop in Japanese paper industry

Profits in the Japanese paper industry plunged in the fiscal year ending Mar. 31 as sales growth ebbed and depreciation costs rose. Amid asset sales and heavy interest payments, major producers, such as Oji Paper Co. Ltd., Jujo Paper Co. Ltd., Sanyo-Kokusaku Pulp Co. Ltd., and Daio Paper Corp., posted pretax profit declines of 35% or more, with Daishowa Paper Manufacturing Corp. Ltd. showing a loss of ¥14.9 million (*P&P*, July 1991, p. 41). The company made a ¥6.9-million profit by selling off land and other assets just to pay dividends. Honshu Paper Co. Ltd.'s pretax earnings dipped 7.0% in 1990, while Rengo Co. Ltd. was the largest Japanese paper company to post profit growth, with a 5.1% increase to ¥7.5 million.

Oji Paper, Japan's largest paper manufacturer, suffered a 37% decline in profit to ¥25.8 billion. The company said it expects to post a 22.7% drop in pretax profits for fiscal 1991 as continued high depreciation costs and rising distribution and material expenses erode its performance. ■

Fiscal 1990 Japanese paper company profits (million ¥).[1]

Company	Gross sales	% change 1990/89	Ordinary income[2]	% change 1990/89
Oji Paper Co. Ltd.	¥482,000	2.8%	¥25,891	–36.7%
Honshu Paper Co. Ltd.	413,000	6.1	5,939	–7.0
Jujo Paper Co. Ltd.	402,900	2.4	13,313	–37.1
Daishowa Paper Manufacturing Co. Ltd.	353,600	0.2	(14,900)	NM
Sanyo-Kokusaku Pulp Co. Ltd.	317,700	0.2	8,177	–50.6
Daio Paper Corp.	275,400	8.9	4,399	–39.3
Rengo Co. Ltd.	235,200	5.7	7,520	5.1
Mitsubishi Paper Mills Ltd.	203,300	1.0	6,690	–58.8
Kanzaki Paper Manufacturing Co. Ltd.	157,500	0.8	4,809	–29.3
Hokuetsu Paper Mills Ltd.	106,200	3.3	5,319	–37.7
Settsu Co. Ltd.	69,000	10.9	98	–99.0

1. Fiscal year ending Mar. 31, 1991.
2. Pretax profit, before extraordinary items.
Source: *PPI This Week.*

Manville to acquire Jorba and Syspack

Riverwood International Corp., formerly Manville Forest Products Corp., agreed in June to acquire the paperboard packaging and packaging machinery manufacturing businesses of Jorba SA and Syspack SA located in Barcelona, Spain. The transaction was to be completed in July. The combined Jorba and Syspack businesses had sales of over $30 million in 1990 and employ around 200 people. Jorba is a leading supplier of beverage carriers to the beer and soft drink industry.

"The acquisition of Jorba is another important step in our strategy to expand in Europe, adding to our strong position in the U.K., Sweden, and Germany. It will provide us with additional converting capacity to service the growing European beverage market," said the company. Last year, Riverwood acquired DRG Cartons, the third-largest producer of folding cartons in the U.K., and Fiskeby Board AB of Sweden, a leading European producer/converter of recycled cartonboard. ■

Smurfit buys Papelera Atlas in Mexico

Ireland's Jefferson Smurfit Group in June acquired a 24,000-metric-tpy recycled paper/board mill in Mexico City, Mexico, and a 12,000-metric-tpy corrugated plant located outside the capital from the privately owned company Papelera Atlas SA. The mill's output is about one-third printing/writing grades and about two-thirds corrugating medium and test liner, which are produced on a 2.6-m-wide fourdrinier machine and a 2.0-m-wide cylinder machine. Smurfit also purchased a corrugated plant in Monterrey, Mexico, from Fabrica de Papel Monterrey.

Smurfit will operate the Atlas mill and the two corrugated plants through its Carton y Papel de Mexico paper and packaging subsidiary. The Mexican operations currently comprise two recycled paperboard mills in Cerro Gordo and Los Reyes, five corrugated container plants, the largest folding carton plant in Latin America, one composite can plant, and one plastic bottle plant. The mills, which use primarily recycled wastepaper, produce about 240,000 metric tpy of containerboard and boxboard. ■

Market Pulp Prices, Production Drop as Producers Hope to Hit Bottom Soon

Output declines 3.2% in 1990, and prices plunge more than 30%, but some pulps, such as hardwood grades, continue to make capacity gains

TABLE 1: **1990 market pulp output for selected countries (000 metric tons).**

	Sulfate	Sulfite	Mechanical	Semi-chemical	Non-wood	Recycled	Total
Canada	6,346	552	1,137	—	—	70	8,105
U.S.	7,167	1,110	6	—	161	47	8,491
Sweden	2,731	361	547	—	—	—	3,639
Finland	1,482	243	60	—	—	60	1,845
Norway	270	227	246	32	—	—	777
Brazil	1,571	25	10	83	—	—	1,689
Japan	775	187	—	40	—	—	1,002
Portugal	1,093	118	—	—	—	—	1,211
France	625	245	3	—	—	—	873
Spain	572	36	23	—	5	—	636
New Zealand	276	—	120	—	—	—	396
Chile	552	—	—	—	—	—	552
Total	**23,480**	**3,104**	**2,154**	**155**	**166**	**177**	**29,216**
Total world	**26,991**	**4,491**	**2,315**	**338**	**495**	**204**	**34,834**

Note: Dissolving included in sulfate and sulfite. Fluff included in sulfate, sulfite, and CTMP. Recycled is mainly deinked grades.

Note: All figures in this article are in metric tons. Pulp & Paper International's 1990 Market Pulp Survey, a summary of which is published here, is an 80-page mill-by-mill listing of nearly 300 market pulp producers worldwide, covering production, capacity, export percentage, and brand names used. This survey is priced at $577 and is available from Pulp & Paper International in Brussels, Belgium. Telephone: (32-2) 537-5626. Telex: 24672 mfp b.

By KELLY H. FERGUSON, Projects Editor

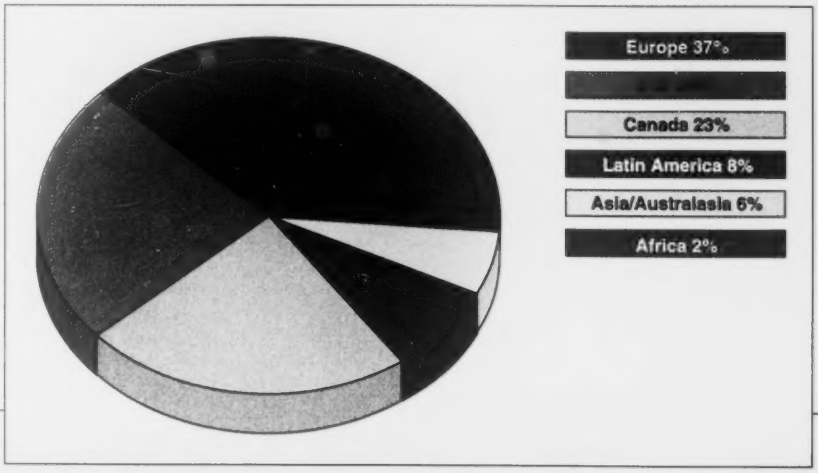
The pulp and paper industry downturn, which began in mid-1990, took its toll on market pulp as prices plunged and world production declined. Total market output was down 3.2% to 34.8 million tons from 1989 levels, based on *Pulp & Paper International's* 1990 Market Pulp Survey. Although capacity increased for most major grades, due to projects begun two to three years ago coming online, production of those same grades was scaled back significantly in 1990.

The geographic breakdown of market pulp production remains unchanged, as North America continues to dominate, producing 47% of the world's total market pulp (Figure 1). That domination will most likely continue, as Canada plans to bring on 622,000 tons of capacity in the next three years and the U.S. expands by 142,000 tons in that same period.

However, capacity increases in other regions could have a major impact on the overall market. In the next three years, significant tonnages will be added by Brazil (550,000 tons), Japan (250,000 tons), Rep. Korea (200,000 tons), Spain (110,000 tons), Portugal (100,000 tons), and Thailand (100,000).

The export picture remains basically unchanged, with Canada as the leading exporter of market pulp (Table 2). However, comparing 1989 export figures with

FIGURE 1: **Geographic distribution of world market pulp production, 1990.**



those in 1990, most of the major exporters cut back somewhat. Canada and Sweden decreased exports by 200,000 tons each from 1989 levels. The U.S., though, increased its exports by 200,000 tons.

Europe is the leader in importing market pulp at 9.3 million tons, followed by Asia/Australasia (almost 5 million tons) and the U.S. (4 million tons). However, both Asia/Australasia and the U.S. decreased their imports of pulp in 1990 (the U.S. decreased imports by more than 300,000 tons). Over the same period, Europe increased its market pulp imports by more than 300,000 tons.

TABLE 2: **1990 market pulp exports from major producers (000 metric tons).**

Major importers	U.S.	Canada	Sweden	Finland	Norway	Brazil	Total
Europe	1,918	2,441	2,603	1,436	867	643	9,908
U.S.	—	3,675	37	14	—	275	4,001
Canada	157	—	1	—	—	9	167
Asia/Australasia	2,317	2,024	230	169	19	240	4,999
Latin America	335	105	2	1	—	23	466
Africa	89	3	40	13	8	—	153
World total	4,816	8,231	2,912	1,633	894	889	19,184

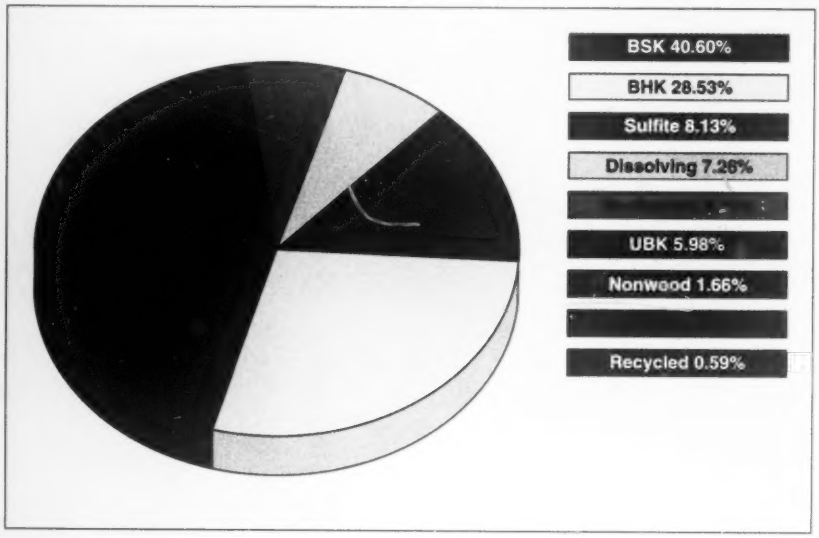
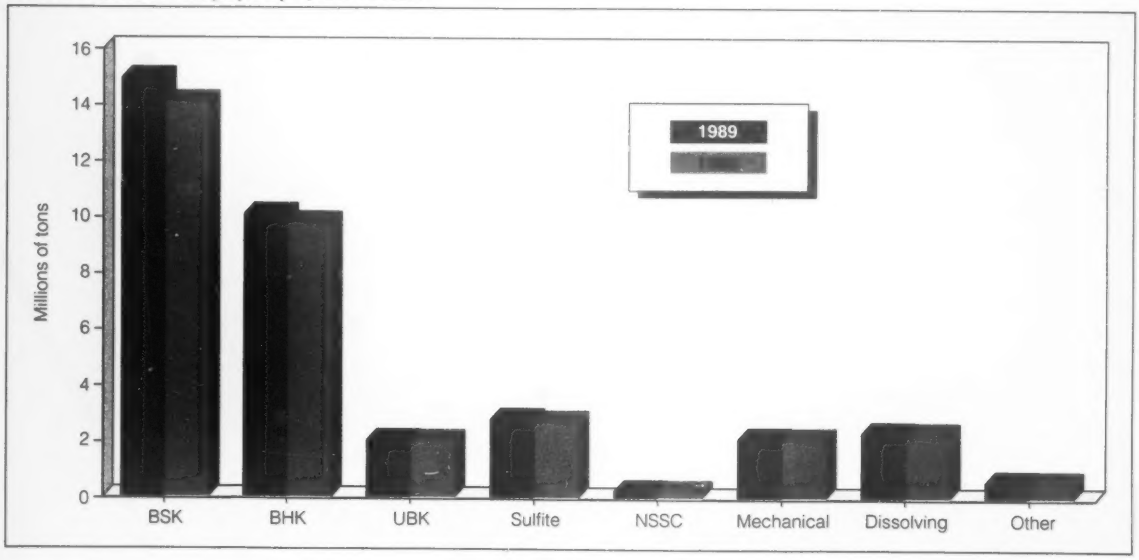


FIGURE 2: **Grade distribution of world market pulp production, 1990.**

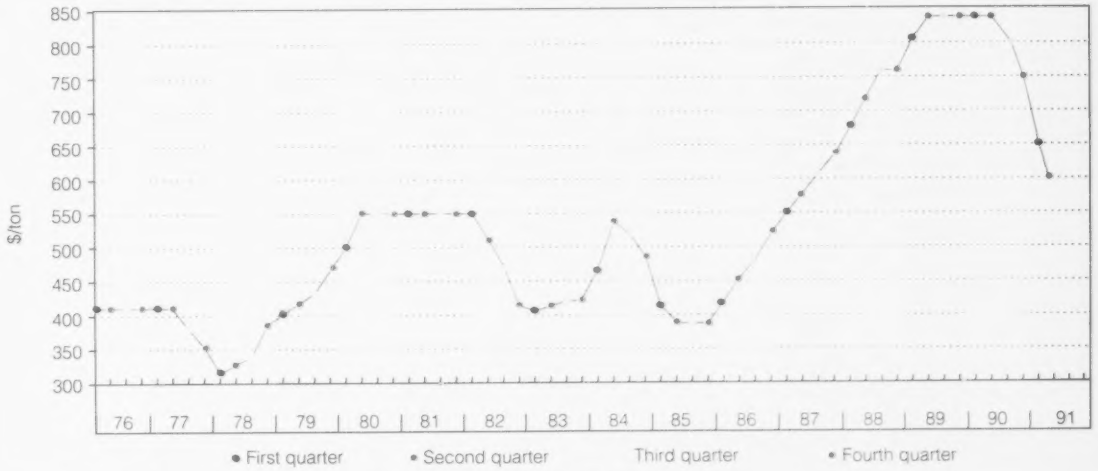
FIGURE 3: **World market pulp output, 1989 vs 1990.**



Behind the U.S., Japan is the single largest importer of market pulp (2.8 million tons), with most coming from Canada (1.27 million tons) and the U.S. (1.21 million tons). Fed. Rep. of Germany was at one time close to Japan as a major importer of pulp, but, now that the two republics have been united, there is no clear indication of how dominant Germany will be in importing pulp.

HARDWOOD GRADES COME ON STRONG. Bleached softwood kraft (BSK) continues to be the major market

FIGURE 4: **Northern bleached softwood kraft price, 1976-91, $/ton in Northern Europe.**



Note: Prices for fourth-quarter 1990 through second-quarter 1991 from *Pulp & Paper Week*

Market pulp prices near the bottom, but harder to see the next recovery

Market pulp prices, which have been in free-fall since early last year, finally appear to be near the bottom. But when the next recovery will begin is far less certain. Production of printing/writing papers should begin to improve in the second half of this year. But any recovery in market pulp prices will take longer because of substantial new capacity additions coming onstream and increasing use of deinked wastepaper pulp.

Sensing that prices had peaked and plenty of pulp was available, pulp consumers began to reduce their inventories in 1989. The reduced demand and rising mill inventories caused prices to begin sliding, starting with southern pine and mixed hardwood. Prices for the southern grades plunged rapidly through the first five months of 1990, creating a large price gap with northern softwood and hardwood.

Rather than reduce prices, Canadian and Nordic producers took extensive production curtailments but lost significant market share to cheaper southern pulps. This was particularly apparent in such markets as Japan, where the more than $150/ton price gap between northern and southern softwood caused buyers to shift heavily to the latter grade. For all of 1990, Canadian chemical paper-grade pulp shipments were down 13%, while U.S. shipments were up 3%.

PRICES IN RETREAT. Canadian producers began to lower the flag in July 1990, when the price of northern bleached softwood kraft (NBSK) was reduced to $800/ton from the domestic list price of $830, which had been in effect since second-quarter 1989. Since then, northern softwood prices have come down rapidly as Canadian producers have tried to reduce swollen inventories, win back market share, and keep cash flowing. By early summer, the price of NBSK had dropped to a list price of $575 in the U.S. market with somewhat lower transaction prices reported. Canadian shipments through May were up 6%—but profits have just about disappeared.

Hardwood pulp has been in tighter supply, and some stabilizing of prices in late spring gave hope that the market might be forming a bottom. However, the tightness in hardwood has probably been due to the unusually large price gap with softwood, which caused some southern U.S. mills to produce more hardwood. Another factor has been wet weather in parts of the South, which has made it difficult to harvest hardwood.

With the price of softwood coming down, industry observers expect more hardwood to be produced. In addition, greater amounts of hardwood will also be coming on the market from such new mills as Daishowa Canada Inc.'s 340,000-metric-tpy mill at Peace River, Alta., which started up last year, and two new eucalyptus mills that began running earlier this year in Latin America—the 525,000-metric-tpy Aracruz Celulose SA mill and the 325,000-metric-tpy Celulosa de Santa Fe SA mill in Chile. All this could place more pressure on hardwood pulp prices, and the floor could become a trapdoor.

pulp grade, accounting for a little more than 40% of total market pulp production (Figure 2). But, as in the 1989 survey, bleached hardwood kraft (BHK) is expected to continue significant capacity gains. BHK already accounts for almost 30% of market pulp output.

Figure 3 shows the continuing trend of the last four or five years. BSK production has continued to decline since 1987, with a 4.9% decline from 1989 to 1990. BHK, on the other hand, has slowly increased since 1987, with only a 2.2% decline in production in 1990 due to general market sluggishness.

Also, BHK capacity for the next three years is expected to increase by more than 1.4 million tons, while BSK will increase by 840,000 tons. Another hardwood pulp, unbleached hardwood kraft, experienced a 27.9% increase in production from 1989 to 1990.

Sulfite pulps seemed to have gained popularity in some regions, accounting for 8.13% of total market pulp output in 1990, up from 7.64% in 1989. For example, almost 100,000 tons of sulfite pulp came online in the U.S. from 1989 to 1990. Europe continues to be the leader in sulfite production, with 1.9 million tons (Table 3).

Mechanical pulps, mainly chemi-thermomechanical pulp (CTMP) from North America, performed reasonably well in 1990. And 120,000 tons of CTMP capacity is expected within the next three years. CTMP production increased 3.9% to 1.38 million tons in 1990, and capacity increased 9.8% to 1.88 million tons.

As for market pulp prices, Figure 4 basically mirrors the industry's downturn. Prices for northern bleached softwood kraft (NBSK) in Northern Europe (US$/ton) plateaued at $840 for about five quarters in 1989 and 1990 before beginning a quick plunge in mid-1990. According to *Pulp & Paper Week*, the price is still unsteady at about $550/ton, but most producers are expecting the market to bottom out in the near future and are predicting an upturn within two years (see sidebar). ■

TABLE 3: **1990 market pulp output by grade and continent (000 metric tons).**

Grade	Europe	North America	Latin America	Asia/ Australasia	Africa	Total
BSK[1]	4,051	8,995	765	238	75	14,124
BHK[1]	4,061	3,284	1,431	978	171	9,925
UBK	587	579	361	406	146	2,079
Sulfite[2]	1,972	806	23	26	—	2,827
Dissolving	425	1,511	22	350	219	2,527
Semichemical	215	—	—	40	—	255
SGW	472	71	—	—	—	543
RMP/CMP/TMP	140	235	—	10	—	385
CTMP	380	837	60	110	—	1,387
Nonwood	94	161	108	162	53	578
Recycled[3]	87	117	—	—	—	204
World total	12,484	16,596	2,770	2,320	644	34,834

BSK=Bleached softwood kraft (sulfate). BHK=Bleached hardwood kraft (sulfate). UBK=Unbleached kraft (sulfate). SGW=Stone groundwood. RMP=Refiner-mechanical pulp. CMP=Chemimechanical pulp. TMP=Thermomechanical pulp. CTMP=Chemi-thermomechanical pulp.

1. Bleached and semibleached. 2. Bleached and unbleached. 3. Mainly deinked grades. Note: Fluff included in sulfate, sulfite, and CTMP.

SCRAPING THE BOTTOM. Prices, however, are not expected to fall much further since current levels are near or below the break-even level of many Canadian and Nordic producers. With pulp no longer profitable to produce, these mills should begin to take heavy downtime in the second half of this year, which should help rebalance supply with demand. This rebalancing could be achieved even more rapidly if current labor negotiations break down in British Columbia, which accounts for about 13% to 14% of the world chemical paper-grade market pulp supply.

Printing/writing paper production should begin to pick up late this year, and this should help market pulp demand. But startup of such new market pulp capacity additions as Union Camp Corp. at Eastover, S.C. (initially about 150,000 tpy), Stone Savannah River Corp. at Port Wentworth, Ga. (350,000 tpy), and Alabama Pine Pulp Co. at Claiborne, Ala. (425,000 tpy), later this year will keep the pressure on the market. In addition, three new chemi-thermomechanical pulp mills have started up in Canada since last fall: Donohue-Matane Inc., Slave Lake Pulp Corp., and Louisiana-Pacific Corp.

Market pulp is also facing increasing competition from wastepaper fiber. This will be coming from a number of new deinked market pulp mills being proposed or built by mostly new entrepreneurs. Fox River Fiber Corp., for example, was scheduled to start up a new 70,0000-tpy deinking mill in Kaukauna, Wis., and at least a half dozen other projects have been announced. In addition, some paper mills are adding their own deinking lines, and this is already reducing their outside market pulp purchases. One West Coast market pulp mill is now looking for new specialty niches after losing some of their newsprint mill customers who reduced their outside pulp purchases after adding deinking lines.

LOOKING FOR THE NEXT RECOVERY. Nevertheless, the next recovery in market pulp will probably come before anyone expects. Demand will continue to grow, particularly from the rapidly expanding economies of Asia. A number of proposed new market pulp projects have been canceled or indefinitely postponed. Some older mills will probably shut down rather than make costly modifications to meet new environmental requirements. Suddenly, buyers will decide it is time to build inventories—and the next recovery in the market will be underway. Although the recovery may start in 1992, it will not get into full swing until 1993, Canfor Corp. chairman and CEO told a recent investment conference sponsored by Goepel Shields & Partners Inc. in Vancouver, B.C.

(*Pulp & Paper* and *Pulp & Paper Week* will be holding a conference on Market Pulp: Looking for the Next Recovery, Oct. 26-27, at Le Meridien Hotel in Montreal, Que.).

Will Mies
Executive News Editor